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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,991	07/14/2003	James Ziech	60680-602	5966

7590 06/14/2005  
DYKEMA GOSSETT PLLC  
SUITE 300  
39577 WOODWARD AVENUE  
BLOOMFIELD HILLS, MI 48304

EXAMINER

LEWIS, TISHA D

ART UNIT PAPER NUMBER

3681

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/618,991

Applicant(s)

ZIECH, JAMES

Examiner

TISHA D. LEWIS

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☒ Claim(s) 23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

### **DETAILED ACTION**

The following is a response to the request for reconsideration filed on March 25, 2005.

#### ***Response to Arguments***

Claims 1-23 are pending in the application.

-The 112 2<sup>nd</sup> rejection of claims 11-15 has been withdrawn due to applicant amending claim 11 to correct a lack of antecedent basis for the limitation "pinion shaft".

Applicant's arguments, see pages 9-13, filed March 25, 2005, with respect to the Schlosser et al reference being silent as to which way the assembly is mounted have been fully considered and are persuasive. The 102(b) and 103(a) rejection of claims 1-22 has been withdrawn.

Applicant's arguments as to WO 02/099311 have been fully considered but they are not persuasive. Due to the WO disclosing that the pinion shaft assembly can be inserted from the rear, it would be inherent that the power divider assembly would also be inserted from the rear for the same reasons as the pinion shaft assembly is, which are to reduce manufacturing cost and assembly time and also to have the carrier formed of one piece. The steps for assembly of the axle assembly would also be inherent from WO since the drawings show the final configuration after assembly in which the components would have to be assembled in the order shown in the configuration (i.e., pinion gear mounted on end of pinion shaft would be pinion gear inserted on pinion shaft or clutch mounted on third gear would be clutch inserted after third gear, etc.).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-21 are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over WO 02/099311. Figure 1 of WO discloses an assembly wherein a differential carrier (16) is provided having a forward opening (36) and a rear opening (38) made of one piece, a pinion shaft assembly is inserted from the rear opening (page 10) wherein a first gear is inserted (90) and located between a forward and rear bearing support structure (84), a pinion gear (94) is inserted onto a pinion shaft (92) and then inserted through the first gear (first gear has to be inserted first to support pinion shaft), a second gear (76) is inserted to be engaged with the first gear after the pinion shaft is inserted (pinion assembly is inserted first to properly mount second gear for engagement to first gear), inserting a plurality of differential gears (74) to engage the second gear (second gear is inserted before differential gears to provide a forward side gear engagement), inserting a third gear (44) to engage the differential gears (third gear inserted after differential gears to properly mount the differential gears and provide a rear side gear engagement), inserting a differential lock clutch (22) with a shift fork and inserting an input shaft (42) supported by a bearing arrangement through the forward opening.

WO does not disclose if the power divider assembly is inserted from the rear as the pinion assembly is.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made and to insert the power divider assembly through the rear opening after the pinion assembly since the pinion assembly is inserted through the rear opening. It would be inherent to do this for the same reasons the pinion assembly is inserted through the rear which is to reduce manufacturing cost and assembly time.

As to claim 21, WO discloses a body (16) having a forward opening (36) for insertion of an input shaft (42) and a rear opening (38) for insertion of a power divider assembly (20) and a pinion shaft assembly (26), a radially extending flange (32) extending from the body at a rear end for connection to an axle housing (12), a bearing cone (cap 54) disposed about the input shaft and fits in a diameter of the forward opening ( due to fit shown in figure, the cone should have about the same diameter as the opening).

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO in view of Glaze et al ('847). WO discloses a forward and rear opening, but does not disclose another opening for the bearings of the pinion shaft.

Glaze et al discloses a gear (284) for a pinion shaft (286) wherein the shaft is supported by forward and rear bearing supports (290, 302) on opposite sides of the gear and a second forward opening (via 315) is used for inserting the forward bearing support wherein a diameter of the opening is about equal to a diameter of a bearing cup supporting the bearings.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide the carrier of WO with another forward opening at the pinion shaft assembly to adjust or replace the bearing supports.

***Allowable Subject Matter***

Claim 23 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**FACSIMILE TRANSMISSION**

Submission of your response by facsimile transmission is encouraged. Group 3600's facsimile number is **(703) 872-9326 before final and 703-872-9327 after final**. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see MPEP 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check.

Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP 512). The following is an example of the format the certification might take:

I hereby certify that this correspondence is being facsimile transmitted to  
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Typed or printed name of person signing this certificate:

\_\_\_\_\_

\_\_\_\_\_

(Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP 502.02). Please do not separately mail the original or another copy unless required by

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the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

-Sherman ('413) is cited as having a transmission with a front and rear opening wherein transfer gears engaged with a differential gear are inserted from the rear opening.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to TISHA D. LEWIS whose telephone number is 571-272-7093. The examiner can normally be reached on M-Thur 6 AM TO 2:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CHARLES A. MARMOR can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tdl  
June 10, 2005

  
TISHA LEWIS  
PRIMARY EXAMINER  
Au. 3681 6/10/05